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EXAMINER	
CURS, NATHAN M	

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2633	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/896,211	Applicant(s) SCHEMMANN ET AL.	
	Examiner Nathan Curs	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 04 August 2005.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-38 and 40-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 38 is/are allowed.

6)☒ Claim(s) 1-35 and 40-42 is/are rejected.

7)☒ Claim(s) 36 and 37 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 August 2005 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145).

Regarding claim 1, Levinson discloses an apparatus for maintaining a stable RF level in an optical link, said apparatus comprising: a transmitter section (fig. 3, elements 100, 150 and 160); a receiver section (fig. 3, element 220); a plurality of feedback loops operationally connected to said transmitter section (fig. 3, elements, 152, 116, B, 170, 162, 180, 176, 184, 100 and 150); and a plurality of feedback loops operationally connected to said receiver section (fig 3, elements 242, 170, 162, 180, A, 232 and 240); and wherein the transmitter section includes a laser producing an optical signal, the laser having a back facet communicating with the optical signal, the laser including a back facet monitor circuit providing a back facet feedback signal depending on the optical signal (fig. 3, elements 100 and 116 and col. 3, lines 4-12 and col. 4, lines 10-12, lines 33-37 and line 56 to col. 5, line 18), the transmitter feedback loops including a signal level derived from a back facet feedback signal (fig. 3, element 116). Levinson disclose that the input signal is a high speed digital or analog signal (fig. 3, element Input Signal and col. 5, lines 56-58), and refers to applicability of the disclosure to laser transmission used for cable television signal communication (col. 2, lines 36-49), but does not

explicitly describe the input signal as an RF signal. Nodine discloses a laser transmitter for transmitting RF cable television signals (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention that the high speed input signal disclosed by Levinson would be an RF signal when applied to laser transmission for cable television signal communication, as cable television RF signals are conventional as taught by Nodine.

Regarding claim 2, the combination of Levinson and Nodine discloses the apparatus of claim 1, wherein the feedback loops perform at least one function selected from the group consisting of: i. RF level stabilization effects; ii. preserve or change optical modulation index (OMI); iii. adjust output power; iv. compensate for temperature changes; v. compensate for laser or system tracking errors; vi. provide gain at proper places in circuitry; and vii. provide RF input changes (Levinson: col. 3, lines 5-12 and col. 4, lines 33-46 and col. 5, lines 1-18).

Regarding claim 3, the combination of Levinson and Nodine discloses the apparatus of claim 1, wherein the feedback loops operationally connected to said transmitter section include a first, second, and third transmitter section feedback loops (Levinson: fig. 3, elements B, 116, 152176, 184 and 100 and col. 4, line 56 to col. 5, line 18, col. 5, lines 49-58). The first feedback loop is indicated by col. 5, lines 1-7, where the controller monitors the Vcc voltage (power) in controlling the bias current; this indicates feedback and therefore a first feedback loop. Both instances of node B and col. 5, lines 1-7 indicate a feedback loop because B represents the controller measuring the current through the transistor in controlling the bias current; this indicates feedback and therefore a second feedback loop. The third feedback loop is indicated by element 184 because the controller controls the attenuator 184 to control the level of the signal to be transmitted by the laser diode; feedback is inherently disclosed here because it would not be possible for the controller to control the level of the incoming signal via the attenuator without feedback.

Regarding claim 4, the combination of Levinson and Nodine discloses the apparatus of claim 1, wherein the feedback loops operationally connected to said receiver section include a first and second receiver section feedback loops (Levinson: fig. 3, elements 240, 242 and A).

Regarding claim 5, the combination of Levinson and Nodine discloses the apparatus of claim 3, wherein the first transmitter feedback loop is a constant power feedback loop (Levinson: fig. 3, element Vcc and col. 5, lines 1-7, as described above for claim 3).

Regarding claims 6 and 8, the combination of Levinson and Nodine discloses the apparatus of claim 3, wherein the second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path (Levinson: fig. 3, elements B and 176, col. 5, lines 1-7, as described above for claim 3, and where the loop is connected between the transmitter section element 100 and attenuator element 184).

Regarding claim 9, the combination of Levinson and Nodine discloses the apparatus of claim 3, wherein the third transmitter feedback loop provides an RF level from a back facet monitor (Levinson: fig. 3, element 116 and 184 and col. 5, lines 49-58, as described above for claim 3).

Regarding claim 13, the combination of Levinson and Nodine discloses the apparatus of claim 4, wherein the first receiver feedback loop is an optical modulation voltage (OMV) feedback loop, said optical modulation voltage feedback loop connected to RF circuitry in said receiver section (Levinson: fig. 3, elements 240 and 232 and col. 7, lines 1-37).

Regarding claim 17, Levinson discloses a method of stabilizing an RF level in an optical link, said method comprising: providing an optical signal transmitter section (fig. 3, elements 100, 150 and 160); providing an optical signal receiver section (fig. 3, element 220); providing a plurality of feedback loops to said optical signal transmitter section (fig. 3, elements, 152, 116,

B, 170, 162, 180, 176, 184, 100 and 150); and providing a plurality of feedback loops to said optical signal receiver section (fig 3, elements 242, 170, 162, 180, A, 232 and 240); and wherein the transmitter section includes a laser producing an optical signal, the laser having a back facet communicating with the optical signal, the laser including a back facet monitor circuit providing a back facet feedback signal depending on the optical signal (fig. 3, elements 100 and 116 and col. 3, lines 4-12 and col. 4, lines 10-12, lines 33-37 and line 56 to col. 5, line 18), the transmitter feedback loops include an signal level derived from a back facet feedback signal (fig. 3, element 116). Levinson does not explicitly describe the input signal as an RF signal, however, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Levinson and Nodine as described above for claim 1.

Regarding claim 18, the combination of Levinson and Nodine discloses the method of claim 17, wherein the feedback loops perform at least one function selected from the group consisting of: i. RF level stabilization effects; ii. preserve or change optical modulation index (OMI); iii. adjust output power; iv. compensate for temperature changes; v. compensate for laser or system tracking errors; vi. provide gain at proper places in circuitry; and vii. provide RF input changes (Levinson: col. 3, lines 5-12 and col. 4, lines 33-46 and col. 5, lines 1-18).

Regarding claim 19, the combination of Levinson and Nodine discloses the method of claim 17, wherein the feedback loops operationally connected to said transmitter section include a first, second, and third transmitter feedback loops (Levinson: fig. 3, elements B, 116, 152176, 184 and 100 and col. 4, line 56 to col. 5, line 18, col. 5, lines 49-58, as described above for claim 3).

Regarding claim 20, the combination of Levinson and Nodine discloses the method of claim 17, wherein the feedback loops operationally connected to said receiver section include a first and second receiver feedback loops (Levinson: fig. 3, elements 242, 240 and A).

Regarding claim 21, the combination of Levinson and Nodine discloses the method of claim 19, wherein the first transmitter feedback loop is a constant power feedback loop (Levinson: fig. 3, element Vcc and col. 5, lines 1-7, as described above for claim 3).

Regarding claims 22 and 24, the combination of Levinson and Nodine discloses the method of claim 19, wherein the second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path (Levinson: fig. 3, elements B and 176, col. 5, lines 1-7, as described above for claim 3, and where the loop is connected between the transmitter section element 100 and attenuator element 184).

Regarding claim 25, the combination of Levinson and Nodine discloses the method of claim 19, wherein the third transmitter feedback loop provides an RF level from a back facet monitor (Levinson: fig. 3, element 116 and 184 and col. 5, lines 49-58, as described above for claim 3).

Regarding claim 29, the combination of Levinson and Nodine discloses the method of claim 20, wherein the first receiver feedback loop is an optical modulation voltage (OMV) feedback loop, said optical modulation voltage feedback loop connected to RF circuitry in said receiver section (Levinson: fig. 3, elements 240 and 232 and col. 7, lines 1-37).

Regarding claim 33, Levinson discloses an optical transmission system comprising: an optical signal transmitter section (fig. 3, elements 100, 150 and 160); an optical signal receiver section (fig. 3, element 220); a signal stabilization system operationally connected to said optical signal transmitter section (col. 5, lines 49-58); and a signal stabilization system operationally connected to said optical signal receiver section (col. 7, lines 1-37); and wherein the transmitter section includes a laser producing an optical signal, the laser having a back facet communicating with the optical signal, the laser including a back facet monitor circuit providing a

back facet feedback signal depending on the optical signal (fig. 3, elements 100 and 116 and col. 3, lines 4-12 and col. 4, lines 10-12, lines 33-37 and line 56 to col. 5, line 18), the transmitter feedback loops include a signal level derived from a back facet feedback signal (fig. 3, element 116). Levinson does not explicitly describe the input signal as an RF signal, however, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Levinson and Nodine as described above for claim 1.

Regarding claim 34, the combination of Levinson and Nodine discloses the optical transmission system of claim 33, wherein the optical transmission system is applicable for a cable television (CATV) system (Levinson: col. 2, lines 36-49).

Regarding claims 35 and 41, Levinson discloses an optical transmitter comprising: a modulated laser that converts an electronic signal into a modulated optical signal (fig. 3, element 100 and col. 5, lines 49-58), the laser including a back facet communicating with the modulated optical signal and a back facet circuit providing an back facet feedback signal from the back facet depending on the modulated optical signal (fig. 3, elements 100 and 116 and col. 3, lines 4-12 and col. 4, lines 10-12, lines 33-37 and line 56 to col. 5, line 18); an attenuation circuit to regulate the level of the electronic signal provided to the laser (fig. 3, element 184 and col. 5, lines 49-58); a bias circuit to control the laser bias depending on the back facet feedback signal (fig. 3, elements 176, 184 and col. 4, lines 56-68 and col. 5, lines 49-58); and a first feedback attenuation circuit to control the attenuation circuit depending on the back facet feedback signal (fig. 3, element 186 and col. 5, lines 49-58); an optical cable communicating with the modulated laser for transmitting the modulated optical signal (fig. 3, element 112); and an optical receiver for receiving the modulated optical signal transmitted by the optical cable (fig. 3, element 220). Levinson does not explicitly describe the input signal as an RF signal,

however, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Levinson and Nodine as described above for claim 1.

Regarding claim 42, Levinson discloses an optical transmission system comprising: an optical transmitter for providing a modulated optical signal (fig. 3, elements 100 and Input Signal and col. 3, lines 4-12); an optical cable for transmitting the modulated optical signal from the optical transmitter (fig. 3, element 112); a photo diode circuit including a photo diode that converts the modulated optical signal to an electronic signal (fig. 3, element 224 and col. 7, lines 9-20), the photo diode having an optical modulation voltage, an optical modulation voltage circuit to control the optical modulation voltage and provide a first attenuation feedback signal depending on the optical modulation voltage (fig. 3, element 240 and col. 7, lines 31-37); an attenuation circuit to provide an attenuated signal based on the electronic signal and a feedback attenuation circuit to control the attenuation of the attenuation circuit depending on the first attenuation feedback signal depending on the optical modulation voltage (fig. 3, elements A, 232 and 242 and col. 7, lines 1-37). Levinson does not explicitly describe the input signal as an RF signal, however, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Levinson and Nodine as described above for claim 1.

3. Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145) as applied to claim 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 above, and further in view of Skyworks ("A Wideband General Purpose PIN Diode Attenuator", June 99, http://www.skyworksinc.com/products_display_item.asp?did=2304).

Regarding claim 7, the combination of Levinson and Nodine discloses the apparatus of claim 6, and an attenuation circuit (Levinson: fig. 3, element 184), but does not disclose that the

attenuation circuit is a PIN transistor circuit. Skyworks discloses a PIN diode attenuator for attenuating signals in RF cable TV applications (page 1, section Introduction and PI Attenuator Fundamentals). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the PIN attenuator of Skyworks for the attenuator of the combination of Levinson and Nodine, because the attenuator of Skyworks is low cost and low distortion, and has broadband constant impedance, wide dynamic range and good compatibility with automatic gain control signals.

Regarding claim 23, the combination of Levinson and Nodine discloses the method of claim 22, and an attenuation circuit (Levinson: fig. 3, element 184), but does not disclose that the attenuation circuit is a PIN transistor circuit. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Skyworks with the combination of Levinson and Nodine as described above for claim 7.

4. Claims 10-12, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145), as applied to claims 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 above, and further in view of Chiappetta (US Patent No. 6687466).

Regarding claims 10 and 26, the combination of Levinson and Nodine discloses the apparatus and method of claims 9 and 25, respectively, but does not disclose an oscillator operationally connected to said third transmitter feedback loop. Chiappetta disclose an RF transmitter circuit with feedback (fig. 3 and col. 1, lines 34-37), including an oscillator adding to the input signal after the feedback-based attenuation and before the optical modulation and detecting the pilot signal in a transmission monitor feedback loop (fig. 3, element Pilot Tone and 307 and col. 1, lines 59-62, col. 4, lines 11-49 and col. 5, lines 53-58 and col. 8, lines 7-12). It

would have been obvious to one of ordinary skill in the art at the time of the invention to add an oscillation pilot signal after the attenuator of Levinson (Levinson: fig. 3, element 184) and before optical modulation (Levinson: fig. 3, element 100), in order to provide the option of monitoring distortion products in the signal using the oscillation pilot signal via the back facet signal monitor feedback, to further assess operation of the transmitter and detect odd-order distortion, as taught by Chiappetta.

Regarding claims 12 and 28, the combination of Levinson, Nodine and Chiappetta disclose the apparatus and method of claims 10 and 26, respectively, wherein said oscillator has an output signal (Chiappetta: fig. 3, element 307, as applicable for the combination with Levinson), said output signal coupled to an input of an RF detector (Levinson: fig. 3, element 116, where the oscillation signal applied after the attenuator element 184 of Levinson means the oscillation signal will be present in the signal detected by element 116 as well), said RF detector having an attenuating output proportional to said input (Levinson: where the output of the photo-diode is an "attenuating output" because it is used in the attenuation feedback loop and is also inherently proportional to its input), and said attenuating output coupled to an attenuation circuit in an RF path (Levinson: fig. 3, element 184, via the feedback loop including element 184 described above for claim 9).

5. Claims 11 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145), as applied to claims 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 above, and further in view of Chiappetta (US Patent No. 6687466) as applied to claims 10, 12, 26 and 28 above, and further in view of Hayes et al. (US Patent No. 5532867).

Regarding claims 11 and 27, the combination of Levinson, Nodine and Chiappetta disclose the apparatus and method of claims 10 and 26, respectively, and disclose an oscillator frequency of 43.25 MHz (Chiapetta: col. 7, lines 51-60 and col. 8, lines 7-12), but not an oscillator frequency of about 100 khz. Hayes et al. discloses an RF modulator with pilot tone, where the pilot tone of 100 khz is preferable, but where any frequency may be used as long as the circuit electronics are fast enough to process it and as long as it is not so close to the main RF modulation frequency that interference occurs (col. 3, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a 100 khz oscillation signal in the combination of Levinson, Nodine and Chiappetta, since the oscillation signal can conventionally be 100 khz or any other frequency met under the teaching of Hayes et al.

6. Claims 14, 16, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145), as applied to claims 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 above, and further in view of Little et al. (US Patent No. 5267071), and further in view of Chiappetta (US Patent No. 6687466).

Regarding claims 14 and 30, the combination of Levinson and Nodine discloses the apparatus and method of claims 4 and 30, respectively, and disclose the second receiver feedback loop used for control the received RF signal level (Levinson: fig. 3, elements 242 and A and col. 7, lines 1-37) but does not disclose that the second receiver feedback loop is an oscillator signal feedback loop. Little et al. disclose an RF receiver where a pilot channel used in transmission and is detected and used in a receiver feedback loop to maintain a constant channel output level (fig. 4, elements 407, 413, 414, 412 and 405 and col. 4, lines 9-23 and col. 8, lines 43-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to add a pilot signal in transmission and to detect the pilot signal in the feedback

configuration of the receiver of Levinson, in order to maintain a constant RF signal output level of the output from Levinson to compensate for environmental fluctuations of the system, as taught by Little et al. Little et al. teaches the pilot channel is a single RF channel, but does not disclose the pilot channel is generate by an oscillator. Chiapetta discloses a pilot channel generated by an oscialltor (fig. 3, element Pilot Tone). It would have been obvious to one of ordinary skill in the art at the time of the invention that an oscillator in the combination of Levinson, Nodine and Little et al. could generate the pilot signal, as generating pilot channels using an oscillator is conventional, as suggested by Chiapetta.

Regarding claim 16 and 32, the combination of Levinson, Nodine, Little et al. and Chiapetta discloses the apparatus of claims 14 and 30, respectively, wherein said oscillator feedback loop includes a device to demodulate said oscillator feedback (Little et al.: fig. 4, elements 407 and 414 and col. 8, lines 43-60).

7. Claims 15 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (US Patent No. 5019769) in view of Nodine (US Patent No. 5379145), as applied to claims 1-6, 8, 9, 13, 17-22, 24, 25, 29, 33-35, 41 and 42 above, and further in view of Little et al. (US Patent No. 5267071), and further in view of Chiappetta (US Patent No. 6687466), as applied to claims 14, 16, 30 and 32 above, and further in view of Hayes et al. (US Patent No. 5532867).

Regarding claims 15 and 31, the combination of Levinson, Nodine, Little et al. and Chiapeeta discloses the apparatus and method of claims 14 and 30, respectively, and disclose an oscillator frequency of 6-10 MHz (Little et al.: col. 8, lines 43-60), but not an oscillator frequency of about 100 khz. Hayes et al. discloses an RF modulator with pilot tone, where the pilot tone of 100 khz is preferable, but where any frequency may be used as long as the circuit

electronics are fast enough to process it and as long as it is not so close to the main RF modulation frequency that interference occurs (col. 3, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a 100 khz oscillation signal in the combination of Levinson, Nodine, Little et al. and Chiappetta, since the oscillation signal can conventionally be 100 khz or any other frequency met under the teaching of Hayes et al.

Allowable Subject Matter

8. Claims 36 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 38 is allowed.

Response to Arguments

10. Applicant's arguments with respect to claims, 1, 3, 6- 9, 11, 14, 15, 17, 19, 21- 25, 27, 30, 31, 33, 35, 41, and 42 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments regarding claims 10, 12, 16, 26, 28 and 32 have been fully considered but they are not persuasive.

Regarding claims 10 and 26, the applicant argues that Chiapetta does not pertain to transmitter feedback and requests indication of the feedback path within Chiapetta being referred to. However, Chiappetta discloses a transmitter (fig. 3, and col. 5, lines 35 and 36), and the feedback path in the Chiapetta transmitter being referred to is the feedback path from

the modulator (fig. 3, element 311), through the distortion monitor to the microprocessor (fig. 3, elements 316 and 312), to the attenuator (fig. 3, element 308), to the coupling with the oscillator (fig. 3, element 307), and sent through the rest of the path back to the modulator. The applicant further requests indication of an RF feedback path from a back facet monitor operationally connected to an oscillator in Chiappetta. However, an RF feedback path from a back facet monitor is already disclosed in the combination of Levinson and Nodine as described above. The feedback path of Chiapetta shows analogous art, thus the teachings are enabled to provide motivation to apply the teachings of Chiapetta to the third (attenuation) feedback path of the combination of Levinson and Nodine, specifically, to apply the Chiapetta oscillator teachings for a transmitter attenuation feedback loop to the attenuation feedback loop of the combination of Levinson and Nodine. The limitation of an "RF feedback path from a back facet monitor operationally connected to an oscillator" is a result of the combination of Levinson, Nodine and Chiapetta, therefore the limitation cannot be indicated in only one of the references; the limitation is met is a result of the combination of references.

Regarding claims 12 and 28, the applicant argues that there is no disclosure of an oscillator within the feedback loop of Levinson. However, since claims 12 and 28 depend from claims 10 and 26, the citation of Levinson for claims 12 and 28 must be viewed in light of the combination. Fig. 3, elements 116 and 184 of Levinson are indicators to show the attenuation feedback loop teaching of Levinson that is combined with the Chiappetta teaching. Since the limitation of claims 10 and 26 are met by the combination, an oscillator can't be explicitly shown in Levinson alone.

Regarding claims 16 and 32, the applicant argues that there is no device to demodulate an oscillator feedback. However, Little et al. teaches converting the pilot signal to a DC voltage for comparison to a reference voltage. This conversion is a demodulation of the pilot signal.

Conclusion

12. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (571) 272-3028. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (800) 786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. R. Sedighian

M. R. SEDIGHIAN
PRIMARY EXAMINER